Paper No. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte TAKAAKI OTA
and
MARK SCHAFFER

_____

Appeal No. 1998-1325
Application No. 08/027,783

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HEARD: OCTOBER 12, 2000

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Before HAIRSTON, BARRY, and LEVY, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 58.

The disclosed invention relates to a method and apparatus for use in a video compression system that detects linear

motion in addition to other motions of video information.

Claim 1 is illustrative of the claimed invention, and it reads as follows:

> 1. Apparatus for use in a video compression system having a motion vector generator for detecting linear motion of video information from one video frame to another and for generating motion vector data representative thereof, and an intraframe spatial redundancy processor for reducing video data representing the video information within a video frame, said apparatus comprising: rotation sensing means for sensing rotation of video information from a previous frame to a present frame; rotation vector generating means for generating rotation vector data representing a magnitude of the rotation sensed by said rotation sensing means; and means for combining said rotation vector data with said motion vector data.

The reference relied on by the examiner is:

Kummerfeldt et al. (Kummerfeldt) 4,816,906 Mar. 28, 1989

Claims 1 through 58 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kummerfeldt.

Reference is made to the briefs and the answer for the respective positions of the appellants and the examiner.

OPINION

The obviousness rejection of claims 1 through 58 is reversed.

Although Kummerfeldt discloses “translation (linear),

rotation (non-linear), expansion (zoom-out), and contraction

(zoom-in)" motions (Answer, page 4), we agree with the appellants (Brief, pages 16 and 17) that:

> One of ordinary skill in the art, after reading and understanding Kummerfeldt, would not learn from this reference that rotation motion or zoom motion should be sensed in addition to linear motion, and that rotation vector data or zoom vector data should be generated. Nor would one learn from Kummerfeldt **how** rotation (or zoom) motion should be sensed and **how** rotation (or zoom) vector data should be generated. Nor would one of ordinary skill learn from the teachings of Kummerfeldt that such rotation (or zoom) vector data should be **combined** with the motion vector data that is generated from linear motion sensing.
>
> One of ordinary skill in the art simply would learn from Kummerfeldt that motion from block to block or from complex to complex is made up of rotation, translation, expansion and contraction (column 3, lines 12-14). It is urged that this observation by Kummerfeldt is not sufficient to enable one to generate separate translation and rotation (or zoom) vectors and then combine those separate vectors, as required by the claims . . . . [Emphasis in original.]

Inasmuch as Kummerfeldt neither teaches nor would have suggested to one of ordinary skill in the art a combination of linear motion vector data with other vector data, we agree with appellants (Brief, page 27) that the examiner "has failed to establish a prima facie case of obviousness."

DECISION

The decision of the examiner rejecting claims 1 through 58 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON Administrative Patent Judge	)	
LANCE LEONARD BARRY Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
STUART S. LEVY Administrative Patent Judge	)	

KWH:hh

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